

Abstracts & Biographies

Presentation 1: Innovations for Sustainable Food Systems: Focusing on Agroecology and Participatory Guarantee Systems

Prof. Dr. LOCONTO Allison Marie (INRAE)

Abstract: The term "agroecology" has had different uses and trajectories in the scientific literature, policy dialogue and social movements (Bellon and Ollivier, 2018; Ollivier and Bellon, 2013), where each offers its own vision of the concept. These range from a science, to a set of agronomic practices informed by ecology, to socioeconomic values, to political platforms (Wezel et al., 2009). Over the past decade, the term agroecology has gained ground in research and higher education (Nicot et al., 2018), agricultural practices, international expert discussions, and specific national policies, legitimizing it as a means to achieve sustainable agriculture (Loconto and Fouilleux, 2019). An element of agroecology that has received less attention is the market for agroecological products and the market infrastructures required to ensure that an "agroecological" quality is recognized and valued in commercial exchanges (Loconto et al., 2018). While organic agriculture has created a set of institutions that allow producers to know which practices provide "organic" quality and allow consumers to recognize it via an on-package label (Fouilleux and Loconto, 2017), the landscape of agroecological products is quite fluid and diverse. Often, products are traded directly between producers and consumers and quality is conveyed verbally. However, there has been a general increase in the use of private labels to claim that products are agroecological or "more than organic" (Poméon et al., 2019). This talk will explore these recent innovations by asking: How does agroecology become a product quality claim in innovative forms of quality control? To answer this question, data on labels claiming to be "agroecological" and related assurance systems were gathered through internet research, market monitoring and semi-structured interviews in the European Union. In this chapter we explore the range of claims, and control networks, used to characterize the so-called "agroecological" labels and confront them with FAO's 10 principles of agroecology. This 27-country comparison offers interesting insights into the overlaps and boundaries between agroecology and organic agriculture in terms of the markets that are created.

Biography: Allison Marie Loconto (PhD, HDR in Sociology) is Co-Director of the Interdisciplinary Laboratory for Science, Innovation and Society (LISIS) and a Research Professor at the French National Institute for Research on Agriculture, Food and

Environment (INRAE). Dr. Loconto is a member of the Multi-stakeholder Advisory Committee of the Sustainable Food Systems Programme of the One Planet Network (UN Environment), a Board Member of Commerce Equitable France and a member of France's National Committee on Organic Agriculture (CNAB). She is an Executive Committee member of the International Sociological Association (ISA) and Past President of ISA's Research Committee on the Sociology of Agriculture and Food (RC40). Dr. Loconto is Chief Editor of the International Journal of the Sociology of Agriculture, an Associate Editor for the Journal of Rural Studies and an editorial board member of Agriculture and Human Values. Previously, she was a Science, Technology and Society Fellow at Harvard University and a Visiting Scientist at the Food and Agriculture Organization of the United Nations. Author of numerous academic and practitioner oriented publications, she focuses on the governance of transitions to sustainable food systems, specifically on the metrics, models, standards and systems of certification that are part of emerging institutional innovations.

Presentation 2: Rural Perspectives on Digital Agriculture: The Case of On-Farm Diversification

Mr. Matteo Metta (University of Pisa/University of Gent)

Abstract: We are told today that agriculture and rural areas are living a pervasive digital transformation. But will digitalisation perpetuate the current productivist and farm specialisation model, or will it strengthen agricultural multifunctionality for rural development, and under which conditions? This paper looks at the specific case of European farmers deploying digitalisation in their on-farm diversification, here defined as on-farm labour beyond farming like social farming, agritourism, nature-based services, or direct selling. By adopting the concept of socio-cyber-physical system, a total of ten farms from Italy, Belgium, Ireland is explored in-depth with transect walks, systems mapping, and semi-structure interviews. The findings show that the practices and results of on-farm diversification strongly depend on social and physical elements, like creativity, location, networking, or connection with nature. However, internet connectivity, online platforms, cloud systems, and software present specific enabling features suitable to these enterprises (e.g., low costs/number of reached users, storytelling, and collaboration functions) and are increasingly being embedded in these dynamic assemblages, thus affecting their labour, social relationships, governance, and business management. While farmers acknowledge some positive contributions in terms of saving time, accessing

information, gaining oversight over processes, enhancing control, or opening new market channels, they also warn about their limitations, incompatibilities, and potential threats like increasing shifting of skills and labour towards digital tasks, virtualization and privatization of public good provisions, high competition with digital venture capitals, or exposure to cyber-attacks. By engaging in this grounded empirical exploration at farm level, the paper offers critical insights to discuss dichotomous debates around digital agriculture and advance our understanding and steering capacity of the structural or/and agent role of digitalisation in supporting on-farm diversification and agricultural multifunctionality.

Key words: digital agriculture; on-farm diversification; multifunctionality; impacts

Biography: Coming from a small-scale family farm in the South of Italy (Puglia), Matteo Metta is a researcher and policy analyst in agri-food and rural development. In his PhD, Matteo is exploring how digitalisation can support or hinder on-farm diversification activities like social farming, direct selling, agritourism, or eco-system services. By collecting insights from the ground, his research aims to advance our understanding of digitalisation in perpetuating or altering existing agricultural models towards diversification and rural development. Along the reform of the EU's Common Agricultural Policy (CAP) post-2022, Matteo coordinates the [CAP Strategic Plans](#) project to analyse its ambition and commitment towards fairer, greener, and rural-proofed agricultural policy.

Presentation 3: Building Resilience for Food and Nutrition Security in Africa: Focusing on Small-Scale Farmers

Prof. Emeritus UMETSU Chieko (Kyoto University) (Presenter)

Assist. Prof. MIURA Ken (Kyoto University)

Abstract: Food and nutrition security has become an important policy agenda in the international community as Sustainable Development Goal 2 aims at ending hunger, achieving food and nutrition security and promote sustainable agriculture. However, this goal is likely to be challenged by emerging risks such as climate change in many developing countries. The Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC) predicts that climate change will affect food security, especially in Africa since majority in the rural areas are rainfed small-scale farmers who are directly affected by climate change. Thus policy intervention in order to build climate

resilience in agricultural sector is urgently required. To envision nutrition sensitive agricultural production and consumption system, we first need to understand i) how farmers themselves are managing climate risks? ii) what are the technical options that enhance farmers' food and nutrition security? The farmers' climate risk mitigation measures were analyzed based on the district-level long-term historical rainfall data from 1962 to 2020 and its effect on maize and sorghum/millet production. The empirical results confirmed that agricultural households under high rainfall risk use hybrid seed, cultivate larger fields and use lower amount of fertilizer per unit of farmland. Also, weather risk does not encourage farmers with the number of crop and plot diversification. Substantial yield loss after introducing risk measures were observed and planting hybrid seeds offsets climate-induced yield reductions. This paper tries to present some current evidence regarding those links in the literature, provide some empirical evidence on small-scale farmers in one of drought-prone areas in southern Zambia, and envision future direction of research.

Keywords: climate risks, food security, nutrition, small-scale farmers, risk management

Biographies: Chieko Umetsu is professor emeritus at the Division of Natural Resource Economics, Graduate School of Agriculture, Kyoto University. She was a project leader of "Vulnerability and Resilience of Social-Ecological Systems" at the Research Institute for Humanity and Nature (RIHN) during 2007-2012 and studied on farmers' resilience in rural Zambia under rainfall variability. She has research experiences in arid and semi-arid regions including Zambia, Turkey and India. She specializes in resource and environmental economics, productivity analysis, and water allocation models and institutions for resource management.

Ken Miura is an assistant professor in the Division of Natural Resource Economics, Graduate School of Agriculture at Kyoto University. He received his Ph.D. in Economics from Brown University in 2020 and his M.A. in Economics from Hitotsubashi University in 2011. His research interests are in development microeconomics, with a focus on household consumption, technology adoption, index insurance, intrahousehold allocation, marriage, and political economy.